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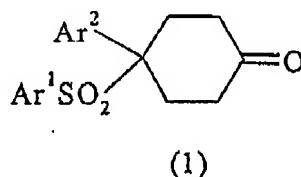
MAY 18 2007

App'l No.: 10/522,261  
Case No.: T1582YP  
Page No.: 2Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

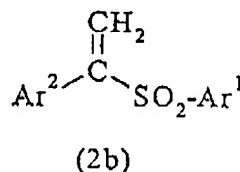
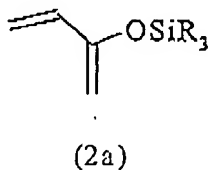
Listing of Claims

1. (Original) A method of preparing a cyclohexanone of formula (1):

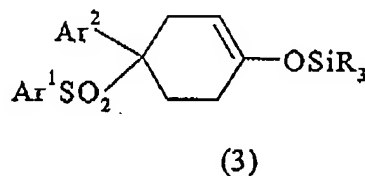


comprising:

- (a) cycloaddition of a 2-trialkylsilyloxybutadiene of formula (2a) to a vinyl derivative of formula (2b):



to form a silyl enol ether of formula (3):



and

- (b) hydrolysis of said silyl enol ether to form the cyclohexanone of formula (1);

wherein, in formulae (1), (2a), (2b) and (3), R represents C<sub>1-6</sub> alkyl;

Ar<sup>1</sup> represents C<sub>6-10</sub>aryl or heteroaryl, either of which bears 0-3 substituents independently selected from halogen, CN, NO<sub>2</sub>, CF<sub>3</sub>, OH, OCF<sub>3</sub>, C<sub>1-4</sub>alkoxy or C<sub>1-4</sub>alkyl which optionally bears a substituent selected from halogen, CN, NO<sub>2</sub>, CF<sub>3</sub>, OH and C<sub>1-4</sub>alkoxy; and

Ar<sup>2</sup> represents C<sub>6-10</sub>aryl or heteroaryl, either of which bears 0-3 substituents independently selected from halogen, CN, NO<sub>2</sub>, CF<sub>3</sub>, OH, OCF<sub>3</sub>, C<sub>1-4</sub>alkoxy or C<sub>1-4</sub>alkyl which optionally bears a substituent selected from halogen, CN, NO<sub>2</sub>, CF<sub>3</sub>, OH and C<sub>1-4</sub>alkoxy.

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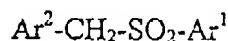
2. (Original) A method according to claim 1 wherein the cycloaddition reaction between the vinyl derivative (2b) and 2-trialkylsilyloxybutadiene (2a) to form silyl enol ether (3) is carried out at 100-150°C in a hydrocarbon solvent under an inert atmosphere.

3. (Previously presented) A method according to claim 1 wherein hydrolysis of the silyl enol ether (3) to the cyclohexanone (1) is carried out *in situ* without isolation or further purification of the silyl enol ether.

4. (Original) A method according to claim 3 wherein said hydrolysis is carried out by treatment with aqueous mineral acid at 30-80°C.

5. (Previously presented) A method according to claim 1 wherein each R represents methyl.

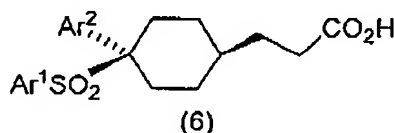
6. (Previously presented) A method according to claim 1 wherein the vinyl derivative (2b) is prepared by reaction of a sulphone (4):



(4)

with N,N,N',N'-tetramethyldiaminomethane and acetic anhydride in DMF and Ar<sup>1</sup> and Ar<sup>2</sup> are as defined in claim 1.

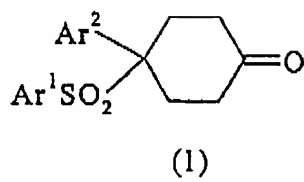
7. (Currently amended) A method of preparing cis-cyclohexanepropanoic acid of formula ~~(6)~~(11)



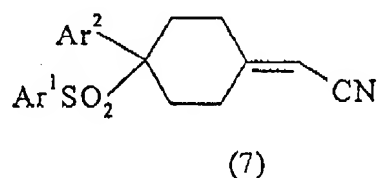
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comprising the steps of:

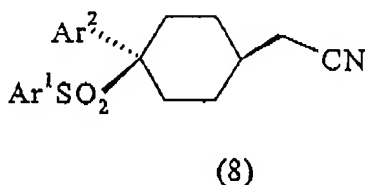
- (c) reacting a cyclohexanone of formula (1)



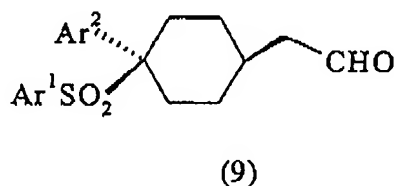
with a di(C<sub>1-4</sub>alkyl) cyanomethylphosphonate and base to form a cyclohexylideneacetonitrile (7):



- (d) reducing said cyclohexylideneacetonitrile with lithium tri-*sec*-butylborohydride to form the corresponding *cis* cyclohexaneacetonitrile (8):

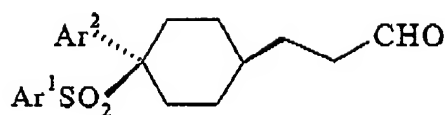


- (e) sequential treatment of said *cis* cyclohexaneacetonitrile with diisobutylaluminium hydride and aqueous acid to form the corresponding *cis* cyclohexaneacetaldehyde (9):



- (f) homologation of said *cis* cyclohexaneacetaldehyde to the corresponding *cis* cyclohexanepropanal (10):

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(10)

and

(g) oxidising said *cis* cyclohexanepropanal to the corresponding *cis* cyclohexanepropanoic acid (6);

wherein Ar<sup>1</sup> and Ar<sup>2</sup> are as defined in claim 1 and “*cis*” refers to the stereoconfiguration of the side chain relative to the Ar<sup>1</sup>SO<sub>2</sub> group.

8. (Original) A method according to claim 7 wherein in step (c) the C<sub>1-4</sub> alkyl groups are ethyl, the reaction is carried out in THF at 0°C or below and the base is potassium *t*-butoxide.

9. (Previously presented) A method according to claim 7 wherein the reduction in step (d) is carried out in THF at about -60°C.

10. (Previously presented) A method according to claim 7 wherein the homologation in step (f) is effected by reaction of the *cis* cyclohexaneacetaldehyde (9) with a methoxymethyltriphenylphosphonium salt and strong base, followed by hydrolysis of the resulting mixture of enol ethers with aqueous acid.

11. (Previously presented) A method according to claim 7 comprising the additional step of neutralising the cyclohexanepropanoic acid (6) with sodium hydroxide to form the sodium salt thereof.

12. (Previously presented) A method according to claim 1 wherein Ar<sup>1</sup> represents 4-chlorophenyl, 4-trifluoromethylphenyl or 6-trifluoromethylpyridin-3-yl and Ar<sup>2</sup> represents 2,5-difluorophenyl or 2,3,6-trifluorophenyl.

13. (Original) A method of preparing sodium *cis*-4-[(4-chlorophenyl)sulfonyl]-4-(2,5-difluorophenyl)cyclohexanepropanoate comprising the steps of:

(i) preparing 4-[(4-chlorophenyl)sulfonyl]-4-(2,5-difluorophenyl)cyclohexanone by the method

of claim 1 wherein Ar<sup>1</sup> represents 4-chlorophenyl and Ar<sup>2</sup> represents 2,5-difluorophenyl.

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(ii) reacting the product of step (i) with diethyl cyanomethylphosphonate and potassium *tert*-butoxide to form [4-[(4-chlorophenyl)sulfonyl]-4-(2,5-difluorophenyl)cyclohexylidene]-acetonitrile;

(iii) reducing the product of step (ii) with lithium tri-*sec*-butylborohydride to form *cis*-4-[(4-chlorophenyl)sulfonyl]-4-(2,5-difluorophenyl)cyclohexanecetonitrile;

(iv) reacting the product of step (iii) sequentially with diisobutylaluminium hydride and with aqueous acid to form *cis*-4-[(4-chlorophenyl)sulfonyl]-4-(2,5-difluorophenyl)cyclohexanepropanal;

(v) reacting the product of step (iv) with methoxymethyltriphenyl-phosphonium chloride and potassium *tert*-butoxide, then hydrolysing the resulting mixture of enol ethers with aqueous acid to form *cis*-4-[(4-chlorophenyl)sulfonyl]-4-(2,5-difluorophenyl)cyclohexanepropanal;

(vi) oxidising the product of step (v) with aqueous sodium chlorite and sulphamic acid to form *cis*-4-[(4-chlorophenyl)sulfonyl]-4-(2,5-difluorophenyl)cyclohexanepropanoic acid; and

(vii) neutralising the product of step (vi) with sodium hydroxide.